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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/830,027	04/23/2004	Tatsuya Hosomi	042360	7503

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WASHINGTON, DC 20036

EXAMINER
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NATNAEL, PAULO S M

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/830,027

Applicant(s)

HOSOMI, TATSUYA

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/28/06.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-6 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Joanblanq, U.S. 6,947,097 in view of Konuma, U.S. 7,023,490.

Considering claims 3-6, Joanblanq discloses a process for detecting black bands in a video image within a luminance range corresponding to low luminance values comprises the steps of: calculating, for each line situated in a location in which a black band can be expected to be found if present in said video image, a value relating to a maximum number of occurrences of points having the same luminance value; averaging said value over said lines in said location; calculating a threshold dependent on said average; and, comparing said value relating to said maximum number of occurrences obtained for a new line with said threshold. Applications relate, for example, to the detection of the "letterbox" format. [emphasis added] (See abstract)

Joanblanq does not specifically disclose means of moving the display position of the letterbox or the side panel as claimed in claim 1-6. However, scaling, resizing or

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moving the image in one or another direction is well known in the art of television signal format detection.

#### The Showing of Konuma

Konuma discloses a picture processing apparatus and a picture processing method that are suitable for a television receiver. Konuma teaches that it is determined whether or not an input video signal is a side panel signal, a letterbox signal, or a full line signal. If the input video signal is a side panel signal or a letterbox signal, when a multiple-picture displaying process or a reduced picture displaying process is performed, only a signal of an effective picture area is extracted. With only the signal of the effective picture area, the picture sizes are adjusted and the pictures are combined. Thus, even if an input video signal is a side panel signal or a letterbox signal, the picture does not become small. In addition, when the reduced picture displaying process is performed, since a wasteful picture portion is not processed, the utilization efficiency of the screen is improved. (Abstract) Horizontal size value (HSV) is compared with display Horizontal size (DHS). col. 13, lines 1-10.

It would have been obvious to the skilled in the art at the time the invention was made to modify the system of Joanblanq by providing the well-known method of adjusting the picture size to the desired size or move the picture/image to any direction as desired. Doing so would allow the Joanblanq reference to be more flexibly applied and thus more useful.

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3. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joanblanq, U.S. 6,947,097 in view of Ebihara et al., U.S. 5,956,092.

Considering claims 3-6, Joanblanq discloses a process for detecting black bands in a video image within a luminance range corresponding to low luminance values

comprises the steps of: calculating, for each line situated in a location in which a black band can be expected to be found if present in said video image, a value relating to a maximum number of occurrences of points having the same luminance value; averaging said value over said lines in said location; calculating a threshold dependent on said average; and, comparing said value relating to said maximum number of occurrences obtained for a new line with said threshold. Applications relate, for example, to the detection of the "letterbox" format. [emphasis added] (See abstract)

Joanblanq does not specifically disclose means of moving the display position of the letterbox or the side panel as claimed in claim 1-6. However, scaling, resizing or moving the image in one or another direction is well known in the art of television signal format detection.

The Showing of Ebihara et al.

Ebihara discloses a television receiver with adjustable frame size providing a frame-size adjusting apparatus comprising a low pass filter for removing high-frequency components from an incoming video signal...a calculation circuit for sampling and accepting segments of the digital data which correspond to a given horizontal position, for checking a signal level in response to the sampled and accepted segments of the digital data, and for detecting upper and lower mask regions in every picture

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represented by the incoming video signal in response to the summing-resultant signal and a result of the check on the signal level... See col. 2, lines 32-58. "During the second mode 2 of operation, the aspect converting circuit 102 changes a normal-aspect incoming video signal into a wide-aspect modified video signal through a nonlinearly and horizontally expanding process, or the aspect converting circuit 102 nonlinearly increases a horizontal deflection width (a horizontal raster amplitude) in the CRT 103. In this case, as shown in FIG. 3, every picture represented by the normal-aspect incoming video signal fully occupies the screen of the CRT 103 while only left-hand and right-hand edges of the picture are expanded horizontally." Col. 10, lines 25-35.

It would have been obvious to the skilled in the art at the time the invention was made to modify the system of Joanblanq by providing the frame-size adjusting apparatus in order to be able to adjust the image to a desired size by moving it to a desired direction.

### ***Response to Arguments***

4. Applicant's arguments filed 12/08/06 have been fully considered but they are not persuasive.

#### **Applicant's argument**

a) With respect to claims 5 and 6, it is respectfully submitted that none of Joanblanq, Konuma and Ebihara et al. disclose or suggest "scene change detection means for detecting, when a letter box [side panel] is displayed, that a scene change occurs" and "means for moving a display position of the letter box [side panel] in response to the

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scene change detection means detecting that the scene change occurs". First, it is noted that the Office Action has not pointed out where any of the references disclose or suggest the "scene change detection means" and "means for moving a display position...in response to the scene change detection means...".

b) However, it is respectfully submitted that none of the references disclose or suggest "means for moving the display position of the letter box by one pixel in response to the calculation means calculating that the average value of the luminances is lower than a predetermined value". By moving the display position of the letterbox [side panel] by a small amount (one pixel), the change is not troublesome to the viewer.

#### Examiner's Response

a) In regards to claims 5 and 6, the claims simply recite scene change detecting means, when either a side panel or letter box is displayed. Joanblanq discloses detecting black band in video image, and applications relate to the detection of the "letterbox" format (Abstract), for implementing automatic zoom for video images in the 4/3 format on 16/9 screen. Col. 1, lines 7-9. In other words, the disclosure relates to format conversion. The reference does not explicitly use the term "scene change detecting means". Given a reasonably broad interpretation however, detecting whether or not there is a black band or "letterbox" to the skilled in the art would be equal to detecting a scene change.

b) Regarding claims 3 and 4, Joanblanq discloses detecting black bars in a video image, "a video image within a luminance range corresponding to low luminance

values...having the same luminance value; averaging said value...." (see abstract), which indicates that the system is operating on the luminance component of the signal, detecting side panels or black bars on all sides of the screen as shown in figs. 1, 2, 2b, 3a. More specifically, on col. 6, lines 2-14, the reference discloses: detecting black bands in a video image within a luminance range corresponding to low luminance values, comprising the steps of: calculating, for each line situated in a location in which a black band can be expected to be found if present in said video image, a value relating to a maximum number of occurrences of points having the same luminance value; averaging said value over said lines in said location; calculating a threshold dependent on said average; comparing said value relating to said maximum number of occurrences obtained for a new line with said threshold. As to the claimed moving means, since Joanblanq is not totally silent, the rejection relied on the teaching of Konuma to show that moving the image to a desired location/direction is well-known in the art. Konuma was not applied in the obviousness rejection to show that "calculating...the average value..." would have been obvious, since Joanblanq already does that. Rather, Konuma was used to show that size changes, moving the picture, or adjusting the picture would have been obvious to the skilled in art as is well known in the art.

Ebihara discloses aspect ratio conversion methods by analyzing/evaluating incoming video signals using picture analysis circuit. In that regard, on col. 25, 35-60, Ebihara teaches that "After the luminance level in the upper and lower mask regions is determined, the calculation circuit 5 defines "C" which is equal to the sum of the luminance level in the upper and lower mask regions and a given value predetermined in consideration of affection by noise. The calculation circuit 5 subjects sampled data pieces in vertical picture line regions to multi-value/bi-value



conversion having a characteristic shown in FIG. 47...According to the multi-value/bi-value conversion in FIG. 47, when the luminance levels represented by sampled data pieces are smaller than the threshold level "C", the sampled data pieces are converted into data pieces indicating a luminance level of "0" or a minimum luminance level. On the other hand, when the luminance levels represented by sampled data pieces are greater than the threshold level "C", the sampled data pieces are converted into data pieces indicating a maximum luminance level "B". In the case where each sampled data piece has 8 bits, the maximum luminance level "B" is equal to "255".

In other words, when certain condition (regarding luminance level in comparison to the a threshold level) is met, the system changes/converts the incoming video signal's aspect ratio to another one, i.e., given a reasonably broad interpretation, moving the position of the letter box.

### ***Allowable Subject Matter***

5. Claims 1 and 2 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose means for judging, when channels are switched, whether or not a letter box is displayed on the previous channel and is also displayed on the new channel; and means for moving, in response to judging that the letter box is displayed on the previous channel and is also displayed on the new channel, the position of the letter box displayed on the new channel from the position of the letter box displayed on the previous channel, as in claim 1; means

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for judging, when channels are switched, whether or not a side panel is displayed on the previous channel and is also displayed on the new channel; and means for moving, in response to judging that the letter box is displayed on the previous channel and is also displayed on the new channel, the position of the side panel displayed on the new channel from the position of the side panel displayed on the previous channel, as in claim 2;

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

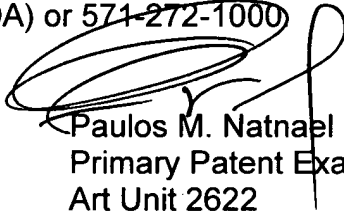
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (571) 272-7354. The examiner can normally be reached on 8AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Paulos M. Natnael  
Primary Patent Examiner  
Art Unit 2622

February 13, 2007